IN THE CLAIMS

Please amend the claims as follows:

1.(original) A crystal oscillator for generating an oscillator signal having a predetermined frequency, said crystal oscillator comprising:

a) a crystal (Q) for determining said predetermined frequency;

b) a frequency-dependent negative resistance circuit (FDNR) connected to said crystal (Q) and having a negative resistance inversely proportional to frequency squared; and

c) means (10) for controlling the amplitude of said oscillator signal, either by a clipping mechanism inside the frequency-dependent negative resistance circuit (FDNR), or by an amplitude control loop controlling the value of the frequency-dependent negative resistance.

2.(original) An oscillator according to claim 1, wherein said frequency-dependent negative resistance circuit comprises a first integrator circuit (I1) having an output connected to said crystal (Q), a second integrator circuit (I2) having an input connected to said crystal (Q), and an amplifier circuit (10) for controlling the amplitude of said oscillator signal.

3.(original) An oscillator according to claim 2, wherein said output of said first integrator circuit (I1) is a low-impedance voltage output, and said input of said second integrator circuit (I2) is a low-impedance current input.

4.(currently amended) An oscillator according to claim 2~~ or 3~~, wherein said amplifier circuit (10) is a clipping amplifier circuit or a gain-controlled amplifier circuit.

5.(original) An oscillator according to claim 4, wherein said amplifier circuit comprises a transconductance amplifier.

6.(currently amended) An oscillator according to ~~any one of the preceding~~ claim~~s~~ 1, further comprising at least one direct current feedback loop for biasing said first and second integrator circuits (I1, I2).

7.(original) An oscillator according to claim 6, wherein said direct current feedback loop comprises a resistor (R1) connected in parallel with said crystal (Q).

8.(currently amended) An oscillator according to ~~any one of~~ claim~~s~~ 2~~ to 7~~, wherein said amplifier circuit (10) comprises a differential pair of transistor means (Q3, Q4).

9.(currently amended) An oscillator according to ~~any one of~~ claim~~s~~ 2~~ to 8~~, wherein said first and second integrator circuits (I1, I2) comprise a single-stage integrating transimpedance amplifier with a feedback capacitor (CA, CB).

10.(currently amended) An oscillator according to ~~any one of~~ claim~~s~~ 2~~ to 8~~, wherein said first and second integrator circuits (I1, I2) comprise a two-stage integrating transimpedance amplifier with a feedback capacitor (CA, CB).

11.(original) An oscillator according to claim 10, wherein a first transistor element (NPN3) of the output stage of said two-stage integrating transimpedance amplifier is biased by a second transistor element (NPN2).

12.(currently amended) An oscillator according to ~~any one of~~ claim~~s~~ ~~9 to 11~~, further comprising resistor means connected in series with said feedback capacitor (CA, CB).

13.(currently amended) An oscillator according to ~~any one of the preceding~~ claim~~s~~ 1, wherein said crystal oscillator has a single-pin configuration, where one terminal of said crystal (Q) is connected to a reference potential.

14.(currently amended) An oscillator according to ~~any one of~~ claim~~s~~ ~~1 to 12~~, wherein said crystal oscillator has a two-pin configuration.

15.(currently amended) An oscillator according to ~~any one of the preceding~~ claim~~s~~ 1, further comprising an anti-latch-up circuit (D1; D1, D2) for preventing an undesirable stable bias point of said amplifier circuit (10).